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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,272	01/16/2004	Andre Veinotte	051481-5133	5147

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EXAMINER	
MCCALL, ERIC SCOTT	

ART UNIT	PAPER NUMBER
2855	

DATE MAILED: 11/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/758,272	VEINOTTE ET AL.	
	Examiner	Art Unit	
	Eric S. McCall	2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 August 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 July 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

FLOW SENSOR FOR PURGE VALVE DIAGNOSTIC

FINAL OFFICE ACTION

In response to the Applicant's amendment dated Aug. 30, 2005.

CLAIMS

Obvious-Type Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-16 and 25-46 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims of copending Application No. 10/758,273.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Independent claim 1 is obvious over claim 1 of patent application 10/758,273 and vice-versa.

Each and every limitation of claim 1 of the present application is included in claim 1 of application 10/758,273. The only difference being that claim 1 of application 10/758,273 sets forth, in addition to the limitations of claim 1 of the present application, that the housing is located downstream of the vent port and upstream of the intake manifold, canister, and purge valve.

However, the present application discloses that the housing is located downstream of a vent port and upstream of an intake manifold, canister, and purge valve. Thus, claim 1 of the present application is not patentably distinguishable over claim 1 of application 10/758,273.

Independent claims 16 and 25 are obvious over claim 16 of patent application 10/758,273 and vice-versa.

Each and every limitation of claim 16 and claim 25 of the present application is included in claim 16 of application 10/758,273. The only difference being that claim 16 of application 10/758,273 sets forth additional limitations in addition to the limitations of claim 16/25 of the present application. This difference being of issue since application 10/758,273 was not filed before the filing of the present application.

However, the present application suggests these additional limitations as set forth in this office action. Thus, claims 16 and 25 of the present application are not patentably distinguishable over claim 16 of application 10/758,273.

Independent claim 33 is obvious over claim 24 of patent application 10/758,273 and vice-versa.

Each and every limitation of claim 33 of the present application is included in claim 24 of application 10/758,273. The only difference being that claim 24 of application 10/758,273 sets forth, in addition to the limitations of claim 33 of the present application, that the sensor is located downstream of the vent port and upstream of the intake manifold, canister, and purge valve. This difference being of issue since application 10/758,273 was not filed before the filing of the present application.

However, the present application suggests that the sensor is located downstream of a vent port and upstream of an intake manifold, canister, and purge valve. Thus, claim 33 of the present application is not patentably distinguishable over claim 24 of application 10/758,273.

Dependent claims 2-7, 9, 10, 12-15, 26-32, and 34-46 are identical to claims 2-7, 9, 10, 12-15, 17-23, and 25-37, respectively, of patent application 10/758,273.

Claims 8 and 11 are very similar to and thus obvious over claims 8 and 11, respectively, of patent application 10/758,273.

(Response to Arguments)

The Applicant's arguments have been considered but have not been found to be persuasive. Specifically, the Applicant has argued that the Examiner has failed to establish why one of ordinary skill in the art would modify the 10/758,273 patent application based on the Applicant's disclosure. The Examiner points out that one having ordinary skill in the art would need not modify the 10/758,273 patent application since that application claims each and every limitation of the current application's claims (see claim 1). The current application sets forth claims that are broader in scope than that of the claims of the 10/758,273 patent application. The "obviousness" in the obviousness-type double patenting originates from the fact that the claims are not word for word exact.

35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8, 10, 16, 18-27, 30, 33, and 41 are rejected under 35 U.S.C. 102(b) as being anticipated by Benjey (6,276,193).

With regard to independent claims 1 and 16, Benjey teaches a fuel vapor management apparatus for an internal combustion engine, comprising:

a housing (1), the housing defining an interior chamber and a valve (3) separating the interior chamber into first and second portions (ie. one portion being the fuel tank itself which is on one side of the valve 3, and the other portion being the fitting, which is on the canister side of the valve 3, between the fuel tank and the conduit 7); and

a device including a temperature sensor (14) disposed within the chamber, the device being configured to detect fuel vapor flow based upon a temperature detected by the sensor (col. 4, lines 41+).

With regard to claims 2 and 3, Benjey suggests the claimed subject matter thereof by teaching a thermistor (col. 3, lines 12+).

With regards to claim 4, Benjey inherently teaches a resistor thermally coupled with the thermistor as claimed since the thermistor is connected to the ECU (12) and the ECU will serve as a resistor.

With regard to claims 5 and 6, even though the valve (3) of Benjey is a "rollover" type valve, the valve will nonetheless be actuated by forces originating from a change in pressure between the first and second portions as claimed.

With regards to claim 7, Benjey suggests the claimed subject matter thereof (14 and col. 5, lines 7+).

With regards to claim 8, Fig. 1 of Benjey discloses the circuit board (14) disposed in the first portion (ie. fuel tank) which includes a coupling end (7) for securing it directly to a canister (2).

With regards to claim 10, Benjey teaches a temperature sensor (14) which has been interpreted as the heating element as claimed. Furthermore, the temperature sensor can either be activated (ie. first configuration as claimed) when the ECU (12) is activated via the vehicle's ignition or deactivated (ie. second configuration as claimed) when the vehicle's ignition is off.

With regard to claims 18-24, Benjey teaches a leak detection means control circuit as claimed as set forth in the above comments.

With regards to claim 25, Benjey teaches a fuel vapor pressure and flow apparatus of a fuel system supplying fuel to an internal combustion engine, comprising:

a housing (1) defining an interior chamber;

a valve (3) separating the interior chamber into first and second portions (ie. one portion being the fuel tank itself which is on one side of the valve 3, and the other portion being the fitting, which is on the canister side of the valve 3, between the fuel tank and the conduit 7);

a pressure sensor (Fig. 5) located within the interior chamber; and

a flow sensor located within the interior chamber, the flow sensor including a thermistor (col. 3, lines 12+).

With regards to claim 33, Benjey suggests a method for diagnosing a purge valve of a fuel vapor pressure management system of an internal combustion engine, comprising the steps of:

heating a temperature sensor (the inherent purpose of a temperature sensor is to heat it in order to detect a temperature wherein the word heat is a relative term); and

detecting fuel vapor flow using the temperature sensor and determining, based on the detected fuel vapor flow, whether the purge valve is purging fuel vapor (col. 4, lines 41+).

35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 9, 11, 17, 28, 29, 31, 34-40, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benjey (6,276,193).

With regards to claim 9, Benjey fails to teach the device, as defined in claim 1, as calculating a flow rate. However, it would have been obvious to one having ordinary skill in the art armed with said teaching to calculate the flow rate with the device as taught.

The motivation being that since the teaching of Benjey is for detecting a leakage in a fuel system, the leakage will be inherently looked at with respect to time. And since a flow rate is the measuring of flow with respect to time, determining a leakage with respect to time would have been within the realm of one having ordinary skill in the art.

With regard to claims 11, 31, and 42, Benjey teaches a pressure operable device comprising the valve (3); the sensor (14) being disposed in one portion; another portion in

continuous fluid communication with a fuel vapor collection canister (2) wherein the one portion is isolated from the canister by the valve.

Thus, Benjey fails to teach the portion which comprises the sensor being in continuous fluid communication with a fuel vapor collection canister and the other portion being isolated from the canister by the valve.

Nonetheless, it would have been obvious to one having ordinary skill in the art to modify the teaching of Benjey by disposing the sensor in the portion which is in continuous fluid communication with the fuel vapor canister.

The motivation being in order to detect the temperature of the fuel vapor in the portion between the fuel tank and the fuel canister in order to better detect a leakage therein.

Furthermore, Benjey fails to disclose detecting a temperature change rate or the specific operation of a purge valve (4) as claimed based on the sensed temperature.

However, it would have been obvious to one having ordinary skill in the art armed with said teaching to detect a temperature change rate.

The motivation being that since the teaching of Benjey is for detecting a leakage in a fuel system, the leakage will be inherently looked at with respect to time. And since a temperature change rate is the measuring of temperature with respect to time, determining a temperature and thus a leakage with respect to time would have been within the realm of one having ordinary skill in the art.

Also, the specific operation of a purge valve as claimed would have been obvious to one having ordinary skill in the art armed with said teaching.

The motivation being that the teaching of Benjey is directed to detecting a vapor leakage and thus the purge valve must be operated in a given fashion so as to not defeat the purpose of the leakage testing.

(Response To Arguments)

The Applicant's arguments have been considered but have not been found to be persuasive. Specifically, the Applicant has argued that the prior art fails to teach or suggest detecting fuel vapor flow based upon a temperature detected by the temperature sensor.

However, the Examiner contends that the detection of fuel vapor leakage in the prior art, which is based on a detected temperature by the temperature sensor 14, does suggest "a device 'configured' to detect fuel vapor flow 'based' upon a temperature" as claimed.

The Applicant has argued that the prior art's temperature detection only determines if a diagnosis is to be performed and not for actually detecting a fuel vapor flow.

However ,the Examiner points out that the Applicant's claim language does not require the fuel vapor flow being detected from a temperature but only that a detected flow is based on a detected temperature. In other words, without a detected temperature in the prior art, the fuel vapor leakage determination will not occur.

CONCLUSION

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Eric S. McCall whose telephone number is (571) 272-2183.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eric S. McCall
Primary Examiner
Art Unit 2855
Oct. 31, 2005